What is claimed is:

1. A method for transmitting signals in a free space, wherein a pair of transmission terminals is disposed in the free space, each of the transmission terminals having a laser transceiver and an optical alignment component, the laser transceiver and the optical alignment component both transmitting and/or receiving laser beams via a single optical component, the method comprising:

   setting the laser transceivers of the pair of the transmission terminals to transmit or receive laser signals via different wavelengths;

   using a visible laser beam sent from the optical alignment component to align the laser transceivers to each other before transmitting or receiving the laser signals; and

   setting each transmission terminal to transmit and receive the laser signals via a common axial direction.

2. The method as claimed in claim 1, further comprising:

   providing a beam-splitting lens to distinguish transmitting laser signals from received laser signals.

3. The method as claimed in claim 1, further comprising:

   providing a collimating lens as the optical component.

4. The method as claimed in claim 1, further comprising:

   providing an optical fiber to output or input laser signals with different wavelengths.

5. The method as claimed in claim 4, further comprising:

   coupling the optical fiber with the optical alignment component before outputting or inputting laser signals with different wavelengths so as to align the transmission terminals to each other via the optical component and the optical fiber.

6. The method as claimed in claim 1, further comprising:

providing a flexibility of locations of/between the optical component and the laser transceiver via an optical fiber.

7. The method as claimed in claim 1, further comprising:

providing an encoder and a decoder at each transmission terminal to encode or decode the laser signals.

8. The method as claimed in claim 1, further comprising:

providing the laser signals transmitted and received from a transmitter module to a receiver module in an one-direction manner.

9. The method as claimed in claim 1, further comprising:

providing the laser signals transmitted and received from a transmitter module to a receiver module in a bi-direction manner.

10. A system for transmitting signals in a free space, comprising:

a pair of transmission terminals, wherein each transmission terminals has a laser transceiver to transmit or receive laser signals; and

an optical alignment component used to align the laser transceivers of the pair of the transmission terminals;

wherein the laser transceiver and the optical alignment component transmit or receive laser beams via a optical component so as to keep the laser transceiver transmitting or receiving the laser signals in a predetermined axial direction, and laser signals having different wavelengths are input and output for each transmission terminal.

11. The system as claimed in claim 10, wherein each transmission terminal has a collimating lens as the optical component to make output laser signals uniform.

12. The system as claimed in claim 10 further comprising a optical fiber for light coupling, the optical fiber providing a flexibility of locations of/between the optical component and the laser transceiver.

13. The system as claimed in claim 10, wherein each transmission terminal has an encoder and a decoder to encode or decode the laser signals.

14. The system as claimed in claim 10, wherein the laser transceiver is a single transmitter module or receiver module so as to provide the laser signals transmitted and received in an one-direction manner.

15. The system as claimed in claim 10, wherein the laser transceiver is a integrated transmitter/receiver module so as to provide the laser signals transmitted and received in an bi-direction manner.

16. The system as claimed in claim 10, wherein each transmission terminal couples to an optical fiber to output or input the laser signals.

17. The system as claimed in claim 16, wherein the optical alignment component is coupled with the optical fiber to output a visible laser beam to align the laser transceivers to each other before transmitting or receiving the laser signals.

18. The system as claimed in claim 16, further comprising a beam-splitting lens coupled with the optical fiber to distinguish input laser signals from output laser signals.